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PART C — ORGANIZATIONAL APPROACH

C.0 Introduction

The FCC, incumbent microwave operators, PCS licensees and consumers of personal communication devices will be well served if the FCC selects an organization(s) that has a proven and respected reputation of supplying the highest order of related communications industry services. Such an organization must be thoroughly familiar with not only the requirements of the relocation cost-sharing clearinghouse task but must also have extensive experience in providing responsible spectrum management services and understand what it means to be fully accountable to customers by providing responsive services. ITA, coupled with the PCS/microwave relocation expertise provided by MLJ, will exceed these requirements.

C.1 ITA Corporate Experience

C.1.1 Organizational Structure

Founded in 1953, ITA is a District of Columbia, non-profit organized corporation. ITA functions as a national, membership-based service association and, in fact, is the largest membership organization in the private wireless industry, with more than 6,500 members who are licensed by the FCC to operate private wireless

facilities throughout the United States and its territories. ITA's membership also includes private and commercial wireless equipment manufacturers, national trade associations representing both industrial and commercial markets, commercial licensees and radio dealers.

ITA is governed by a Board of Directors comprised of licensees elected by the membership and representatives appointed by equipment manufacturer and supporting trade association members. A current roster of ITA's Board of Directors is contained in Exhibit C-1. These individuals serve on a non-compensatory basis and afford ITA a significant communications industry base from which to craft strategic organizational and representational policy positions.

C.1.2 Organizational Objectives

ITA's fundamental organizational objectives incorporate the activities to be performed by an FCC-selected PCS/microwave cost-sharing clearinghouse. Among others, these include:

- ◆ Provide an instrumentality through which users or potential users of radio ... may coordinate their own efforts and cooperate with other groups, organizations and associations in bringing about the most efficient use of the radio spectrum ...;

- ◆ Establish and maintain a frequency advisory system designed to supply licensees ... with frequency recommendations or other appropriate advice on utilization, so as to improve equitable use of the frequencies available and minimize interference among licensees to the greatest extent possible;
- ◆ Encourage, prepare and disseminate publications, papers, technical data and other information services ...; and
- ◆ Provide telecommunications engineering, radio system management and administrative services, data dissemination and information analysis functions designed to assist users of the radio spectrum in complying with the requirements of the FCC in managing their radio systems.

C.1.3 Spectrum Management Responsibilities

ITA is an FCC-certified frequency advisory committee and performs primary spectrum management, license processing, frequency selection and interference negotiation/resolution functions for the Special Industrial Radio Service in the bands below 800 MHz; for Industrial/Land Transportation applicants and licensees in the 800/900 MHz bands; and, prior to the implementation of licensing freezes resulting from the FCC's WT Docket No. 93-144 proceeding, for both Industrial/Land Transportation and commercial applicants and licensees in the 800 MHz bands.

Given the complexity of identifying suitable spectrum for newly deployed systems in these congested bands, a substantive component of these activities continues to be the application of sophisticated spectrum analytical software tools that serve to identify suitable sites and technical system configurations to optimize spectrum deployment opportunities. Because of these capabilities, ITA performed the majority of the spectrum-selection and site-identification analyses for the wide-area SMR industry. ITA also developed the software analytical tools and provided the hardware necessary for the FCC to process what became known as the "800 MHz Backlog Project".

Under contractual agreements, ITA also performs the spectrum database management, license processing, frequency selection and interference negotiation/resolution services for the following organizations, which are also FCC-certified frequency advisory committees:

- ◆ Alliance of Motion Picture and Television Producers (for the Film and Video Production Radio Service);
- ◆ Petroleum Frequency Coordinating Committee, American Petroleum Institute (for the Petroleum Radio Service);
- ◆ Newspaper Association of America (for the Relay Press Radio Service); and

- ◆ Telephone Maintenance Frequency Advisory Committee (for the Telephone Maintenance Radio Service).

In support of the International Taxicab and Livery Association's responsibilities as the FCC-certified frequency advisory committee for the Taxicab Radio Service, ITA provides on-line computer capabilities, data communication services, software maintenance and customer support services.

Collectively, ITA processes approximately 7,500 license applications annually, which represent nearly 100,000 specific site evaluations in conformance with FCC Rules and Regulations.

C.1.4 Engineering and Technical Services

ITA provides a broad array of engineering services to assist licensees in the design of wireless systems. Specific services include terrain-based system propagation analyses, microwave path studies, shadow maps, three-dimensional terrain renderings and frequency selection. Through its Gettysburg, Pennsylvania, office, ITA provides extensive licensing and research capabilities.

In support of spectrum utilization informational needs, ITA provides numerous wireless licensees and consultants direct on-line access to spectrum databases. In

support of this product, formatted data reports are supplied to both Association members and commercial customers.

C.1.5 Computational Resources

ITA owns and operates extensive computer facilities that support its spectrum management and technical service activities, which are available to support the data management requirements of the cost-sharing clearinghouse function. ITA would be pleased to provide a summary of this resource capability for public inspection at the FCC's request.

For purposes of the clearinghouse function, ITA will dedicate existing computer resources exclusively to this project to perform necessary computational and technical analyses. This will serve to reduce project costs (additional hardware investments are not required) and will ensure the integrity of the project.

Assuming the FCC elects to identify multiple clearinghouses, as discussed in Part A of this Business Plan, ITA is fully capable of exchanging information electronically with one or more entities. In fact, ITA and PCIA routinely exchanged time-sensitive technical application information when both organizations were actively performing competitive frequency selection services in the former 800 MHz General Category Pool. ITA is certainly willing to continue this cooperative relationship to

exchange critical information electronically to achieve the goals of the clearinghouse functions.

C.2 MLJ Corporate Experience

MLJ specializes in the design, development and implementation of advanced mobile, broadcast and common carrier radio facilities. The firm has provided engineering services to the telecommunications industry for more than 40 years in both domestic and international markets. MLJ offers full-service engineering consultation, beginning with initial FCC licensing activity through system design, operation and network optimization.

MLJ has engineering expertise in PCS, cellular, SMR, paging, satellite, microwave, wireless cable and other wireless industries. MLJ's capabilities include detailed network planning, preliminary site design, field measurement and analysis, final site planning, PCS/OFS interference avoidance, frequency planning, system optimization and FCC/FAA filings. The company has also expanded its expertise into facility interconnection to the PSTN and MTSO and advanced networking for PCS system development. Some of MLJ's accomplishments include:

- ◆ Designed the first operational PCS system in the US;
- ◆ Conducted microwave interference analyses for more than 45 MTAs; and

- ◆ Currently providing engineering services to many PCS operators and vendors.

MLJ's Information Systems Division has developed specialty software and hardware products to support RF design requirements for the telecommunications industry. MLJ has a team of more than 30 software programmers dedicated to the development of engineering and specialty software tools for both internal and external use. Additionally, MLJ is knowledgeable and experienced in the field of database development and management. MLJ provides extensive information services to the PCS, microwave, cellular, SMR and broadcast industries.

C.2.1 MLJ Project Contributions

ITA has entered into a subcontracting arrangement with MLJ's Information Systems Division to provide technical assistance with the design, development and implementation of the unique technical software programs this project requires. MLJ's proven expertise in developing sophisticated specialty software and hardware products for the telecommunications industry directly supports ITA's commitment to satisfy the technical requirements of the clearinghouse function, as well as to provide the PCS and microwave industries with innovative services and competent analytical tools.

MLJ's contributions will be directed toward the developmental and

implementation stages of this project. At no time will MLJ be involved in the fulfillment of administrative or client-service functions of ITA's clearinghouse operations. The software programs and databases developed for and dedicated to this project will reside on hardware located at ITA's facilities within a secure environment, ensuring the confidentiality of proprietary data.

MLJ's Information Systems Division will also provide ITA's CHD with technical advisory assistance and software upgrades or modifications, as requested by ITA to enhance service offerings and client support.

C.3 Management Approach

C.3.1 Introduction

To sustain compliance with FCC requirements and to enhance industry confidence in the performance of ITA's efforts, ITA will form a distinct Clearinghouse Division, as mentioned in Section A.4.1, within its organization. The CHD will be dedicated to performing the various tasks associated with this project. In this way, ITA may take advantage of the qualifications of its professional staff and maintain project management control, focus the clearinghouse effort and isolate program costs. The latter objective is essential to ensure that the various services are provided strictly on a cost basis, so as not to financially encumber the relocation

reimbursement process. It is also prudent for ITA to control its costs, so that it may provide its services at fees that engender customer growth and retention. Accepted cost-accounting principles will be applied, and CHD financial reports will be made available to the FCC upon request.

C.3.2 Key Personnel and CHD Responsibilities

- ◆ Mark E. Crosby, ITA President and Chief Executive Officer, will have overall strategic planning and policy guidance accountability. Specific attention will be directed toward ensuring that the CHD fully meets all existing and anticipated requirements of the FCC and the PCS/microwave incumbent industries. Crosby will also be responsible for communicating trends and activities with all industry associations and organizations whose members are affected by microwave relocation cost-sharing developments.

Crosby has served as the President of ITA since 1975 and is intimately familiar with the allocation and regulatory history of the FCC proceedings that culminated in the development of the PCS industry and the administrative requirements that have followed. ITA is recognized by the wireless industry as one of the leading associations concerned with national telecommunications issues and as one of the leading suppliers of spectrum management services.

Crosby serves as Secretary/Treasurer of the Land Mobile Communications Council and was reappointed as a member of NTIA's Spectrum Planning and Policy Advisory Committee, which provides advice to the Federal Government on spectrum use, long-range planning and radio spectrum management issues, by Secretary of Commerce Michael Kantor on May 7, 1996.

- ◆ Ahmad Beyranvand, ITA Director, Engineering Services, will serve as CHD Project Manager. Beyranvand's specific responsibilities will include PCS Relocator registration processing; conducting CHD-generated PTTs upon receipt of Later Entrant-supplied PCNs; processing Later Entrant-generated PTTs; and producing and distributing Later Entrant Reimbursement Obligation Notifications. Beyranvand will be responsible for ensuring that microwave relocation cost reports are complete, exclude premium relocation payments, conform with the microwave relocation cost-sharing formula and are expeditiously distributed to all parties concerned.

With more than thirteen years of communications engineering experience and specific hands-on knowledge of the intricacies of PCS system deployment and microwave relocation, Beyranvand is uniquely qualified to serve as CHD Project Manager. As Project Manager with Comsearch, Beyranvand managed an engineering team through the design and implementa-

tion of a cellular prototype digital TDMA Interactive Video and Data Service for more than 100 MSAs. Work included site selection, engineering parameter optimization, propagation study and frequency planning. More recently, Beyranvand was RF Engineering Manager for PCS PrimeCo, where he was responsible for a CDMA-based PCS engineering team conducting RF network engineering, cell-site identification, link relocation budget analyses, site-propagation studies, technical site reviews, antenna configurations, cable runs and the integration of field measurement data with propagation modeling.

- ◆ Derek P. Sibeck, ITA Director, Computer Operations, will be responsible for the CHD tasks associated with developing and maintaining the hardware and software resources used to support the database/transaction-management information system functions of the project. Sibeck will work closely with Beyranvand and MLJ's technical advisors to ensure that all technical intricacies unique to the software components of the clearinghouse function meet requirements at commencement.

Sibeck has been employed by ITA for more than two years and is skilled in computer system design and data communications. Sibeck was the lead programmer that culminated in the processing of the 800 MHz Backlog Project and is fully literate in all program languages, *i.e.* COBOL, Powerhouse, Pascal and C, etc., that are required to craft engineering and

technically oriented programs. Sibeck's prior work experience includes Sunrider International, Mobil Oil and Integrated Computer Systems.

- ◆ Marshall Medoff will be joining ITA's management information staff on May 28, 1996, as Senior Programmer and will provide supporting programming and system management expertise to the CHD.

Medoff has more than ten years of application development and system management experience, with prior employment at Interstate Van Lines and the U.S. Department of the Treasury, where he wrote system- and program-specification documents for the procurement of an automated trust fund accounting system.

- ◆ Ellen K. Hobby, CPA, ITA Director, Finance, will manage the CHD's accounting records and will be responsible for ensuring that the financial integrity of the project is maintained. Hobby will also be responsible for conducting appropriate cost accounting to ensure that the project is performed on a cost basis and will prepare all appropriate financial reports for dissemination and review purposes.

Hobby has been employed by ITA for more than four years and has more than 12 years of managerial accounting experience. She also has more

than seven years of cost-accounting experience and is proficient in several automated accounting systems, as well as spreadsheet software, such as Lotus and Excel.

- ◆ Frederick J. Day, Esq., ITA Executive Director, Government Relations, will be responsible for monitoring all FCC regulatory matters that may affect CHD management and functions. Day will also serve as the primary industry point-of-contact responsible for facilitating information exchange and discussions during reimbursement negotiations. Day is a member of the American Arbitration Association (AAA) and will be attending special AAA training sessions designed to provide knowledge and expertise in the use of alternative mediation and arbitration techniques that may be employed, in lieu of having parties seek relocation reimbursement solutions through litigation.

Day has been employed by ITA for more than three years and has carefully monitored the development of PCS regulations and cost-sharing rules. Day served with the FCC's formerly designated Private Radio Bureau in a variety of legal advisory capacities. Day is a member of the Virginia State Bar and the District of Columbia Bar.

- ◆ Mark A. Steinwinter, MLJ's Director of Information Systems, will provide the CHD with technical advice and assistance during the software and

database development stages. Steinwinter will also supply advisory assistance related to the provision of current and anticipated technical and engineering services.

Steinwinter oversees MLJ's entire Information Systems Department, including the LAN, database services, specialized software product development and technical publishing. Steinwinter also assists in formulating corporate strategy, new business development, product development, and marketing and sales.

It is evident from these brief descriptions that ITA has consolidated substantial professional resources within its Clearinghouse Division and will receive additional substantive guidance from the PCS/microwave industry experience resident within the MLJ organization. ITA's CHD is comprised of key personnel, augmented by general support staff, who are fluent with the technical and financial reimbursement components of the relocation process, aware of the regulatory environment, aware of the competitive nature and urgency of this critical process and accustomed to providing a level of customer service commensurate with the demands of the marketplace.

The CHD will provide a focused entity within ITA, upon which the requirements of the cost-sharing relocation reimbursement process may be

successfully accommodated and achieved. A Clearinghouse Division Organization Chart is presented in Exhibit C-2. At the request of the FCC, ITA would be pleased to submit resumes of all key personnel for review.

C.3.3 Key Personnel Availability

The FCC's request for ITA to submit a business plan was conditioned upon the submittal of its plans regarding start-up funds. As presented in Part A, ITA is willing to risk its time, efforts and resources, including its financial resources, to accomplish the FCC's and the associated PCS industry's cost-sharing resolution objectives. ITA thus has a fundamental and vital independent motivation to make this venture a success and to ensure that key personnel are consistently available to perform their respective tasks and responsibilities.

ITA will rely on existing staff and personnel to execute the clearinghouse project, which contributes to providing services on a cost-effective basis. With the exception of Mr. Medoff, who will commence employment on May 28, 1996, these individuals are already in place and are performing very similar or related management and technical activities that are required to accomplish clearinghouse activities. CHD personnel will be reassigned or expanded to serve clearinghouse requirements as future events dictate.

C.4 Financial Approach

C.4.1 Introduction

The following section provides a description of ITA's Clearinghouse Division financial management plan. Incorporated are projected costs to develop, provide and maintain the required clearinghouse activities and services and projected revenues to support these activities on a cost basis. A two-year projected financial statement is provided as Exhibit C-3 to comport with the FCC's non-profit requirement.

C.4.2 Projected Revenues

Annual revenues are a product of anticipated clearinghouse registrations, services requested and service fees. The projections supplied anticipate that the FCC will select more than one entity to provide clearinghouse functions, which consequently requires market penetration estimates.

We recognize that there are a finite number of microwave links that will be subject to relocation reimbursement. It is difficult, if not virtually impossible, to determine with any degree of certainty the number of PCNs that will require the initiation of the reimbursement obligation and collection process. And as ITA has developed its Technical Approach, it is equally difficult to determine how many PCS

licensees will choose to conduct their own PTTs utilizing ITA's Distributed PTT resource. We do know that all activities will cease on or before April 4, 2005.

C.4.2.1 Fee Schedule

Descriptions of the services provided for each category within the following fee schedule are presented in Part B.

<u>Activity/Service</u>	<u>Fees</u>
◆ PCS Relocator Registration	\$150/link
◆ PTTs	\$250 plus \$15/base station (electronic) or \$25/base station (paper PCN)
◆ Distributed PTT CD-ROM	\$5,000 each
◆ Report Processing	\$100/each
◆ Dispute Resolution	
... ITA-negotiated Mediation	\$500 plus time & materials/dispute
... CPA Firm Analysis	Parties share cost
... Mediation	Parties share cost

C.4.3 Projected Expenses

The operating costs associated with ITA's clearinghouse activities have been

calculated on a direct as well as an indirect basis, considering some costs are directly attributable to a specific product or service, where other costs must be allocated using an appropriate cost driver. A brief description of the components within the various expense categories are presented below.

C.4.3.1 Direct Expenses

- ◆ Software and Product Development — As discussed in Section C.2.2, ITA has subcontracted with MLJ's Information Systems Division to provide support in the development of the technical software programs, databases and analytical products essential to this project. The developmental costs include system requirements; design; prototype; specifications; coding; software quality assurance; integration; documentation; installation and training. In addition, there are significant software and database license fees reflected within this expense category.
- ◆ Personnel — Reflected in this expense category are the salaries and associated benefits of staff assigned to the clearinghouse project. While it may be generally acceptable to calculate this expense as a percentage of operating revenues, ITA will allocate salaries and benefits on a direct-charge basis for purposes of cost-basis accounting. All employees, whether specifically assigned to the CHD or providing general support services, will maintain time

records to track CHD activities.

While ITA recognizes that the scope of activities may change during the course of the project and will, consequently, affect the amount of time dedicated per employee, the key personnel identified in Section C.3.2 will be fully committed to the project during the development and implementation stages.

The personnel cost estimates reflect actual 1996 and projected 1997/1998 salaries, as well as a 19% component for associated employee benefits only, *e.g.* health, life and disability insurance and pension benefits. All other benefits are excluded.

- ◆ Software License Fees — This expense item reflects the software and database licensing fees associated with software and products developed by MLJ.
- ◆ Professional Services — Projected costs for outside professional services include technical advisory services (MLJ) and legal expenses.
- ◆ General Office — Components of this expense category include office supplies, printed matter, telephone, postage and Internet fees.

- ◆ Communications — These expense categories were included in the CHD financial projections based upon the assumption that the FCC will select more than one entity to provide a clearinghouse function. Such a competitive environment will require consistent communication efforts with the industry. However, we have allocated only 1% of the total project expenses to this function, as it will be supplemented by ITA's inherent corporate marketing programs.

C.4.3.2 Indirect Expenses

- ◆ Office Leases — The allocation of office lease expense is based upon the percentage allocation of staff dedicated to the project. Specifically, the projection is 9% allocation of ITA's Arlington, Virginia, facility.
- ◆ Software/Hardware Maintenance — Software maintenance will be provided primarily by MLJ's Information Systems Division as ITA's subcontractor for software development. Components of software support include help desk, bug fixes, upgrades and technical support.

ITA will use existing computer hardware resources to support the project and will ensure such hardware is segregated and dedicated to the CHD. Equipment apportioned to this project will include PCs, printers,

facsimile equipment, photocopiers, mail-processing equipment, etc. Maintenance costs will be allocated based upon the percentage of equipment dedicated or utilized.

- ◆ Corporate Insurance — This expense category represents corporate insurance carried by ITA and is allocated based upon the percentage of staff dedicated to the project.
- ◆ Depreciation — As an administrative overhead expense, depreciation will be calculated as a percentage of staff dedicated to the project.

C.4.4 Projected Financial Statements

Exhibit C-3 provides projected financial statements for the first two years of the clearinghouse project based upon anticipated revenues generated from service and product fees illustrated in Section C.4.2.1 and associated costs described in Section C.4.3.

A financial analysis may be conducted to the year 2005. However, the variables associated with clearinghouse competition, anticipated PCS site-deployment strategies, estimates regarding the number of new PCS entrants and the potential for microwave incumbents to receive reimbursement rights following self-relocation must

be incorporated.

As a designated clearinghouse entity, ITA will be prepared to provide the FCC with full financial disclosure of the CHD's activities upon request, as has been the case in regards to ITA's FCC-certified frequency advisory committee activities.

While the FCC requires that the clearinghouse function be operated on a not-for-profit basis, there is, nevertheless, the requirement to operate the function in a prudent business manner, replete with associated cost-accounting and financial management controls.

ITA BOARD OF DIRECTORS

Mark S. Allen
E.F. Johnson Company
Waseca, Minnesota

Paul A. Anderson
Northwest Airlines, Inc.
St. Paul, Minnesota

Spencer L. Bahner
Airborne Express
Seattle, Washington

Clifford C. Beasley Jr.
Florida Citrus Processors Association
Winter Haven, Florida

David Berndt
Ford Motor Company
Dearborn, Michigan

E. Rick Bowler III
E. V. Williams Co., Inc.
Norfolk, Virginia

Reginald L. Brown
Florida Fruit & Vegetable Association
Orlando, Florida

Charles S. Burns
Annandale, Virginia

J. Nicholas Counter III
Alliance of Motion Picture & Television
Producers
Encino, California

Mark E. Crosby
Industrial Telecommunications
Association, Inc.
Arlington, Virginia

Andrew Daskalakis
AMK International, Inc.
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Kevin P. Demery
Ericsson, Inc.
Lynchburg, Virginia

Ken Doll
Bear Communications, Inc.
Costa Mesa, California

Thomas J. Donnelly
Georgia-Pacific Corporation
Ashdown, Arkansas

John J. Donovan
NYNEX Video Services Operations
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Rocco A. Eramo
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K. M. Falkenthal
Bell Communications Research
Piscataway, New Jersey

Benjamin J. Friedland
Morristown & Erie Railway, Inc.
Morristown, New Jersey

Jack Friedman
Swiss Valley Farms Company
Monticello, Iowa

William G. Harley
National Utility Contractors Association
Arlington, Virginia